

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A communication system, comprising:

a protocol converting controller that receives a first upstream mobile terminal message having a mobile terminal communication protocol and converts the first upstream mobile terminal message into a first upstream Internet message having an Internet protocol,

wherein the first upstream mobile terminal message comprises a destination address, which corresponds to the mobile terminal communication protocol,

wherein the protocol converting controller receives the first upstream mobile terminal message, selects a first upstream Internet address corresponding to the destination address of the first upstream mobile terminal message, and generates the first upstream Internet message based on the first upstream Internet address, and

wherein the first upstream Internet message is supplied to an Internet application.

2. (currently amended): The communication system as claimed in claim 1, wherein the protocol converting controller receives a first downstream Internet message having the Internet protocol and [converting] converts the first downstream Internet message into a first downstream mobile terminal message having the mobile terminal communication protocol,

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appl. No. 09/599,534

wherein the first downstream Internet message is responsive to the first upstream Internet message.

3. (original): The communication system as claimed in claim 1, wherein the mobile terminal communication protocol is one of an SMS protocol and USSD protocol.

4. (original): The communication system as claimed in claim 1, wherein the Internet protocol is one of an HTTP protocol and an XML protocol.

5. (canceled).

6. (currently amended): [The] A communication system [as claimed in claim 5],
comprising:

a protocol converting controller that receives a first upstream mobile terminal message having a mobile terminal communication protocol and converts the first upstream mobile terminal message into a first upstream Internet message having an Internet protocol.

wherein the protocol converting controller receives the first upstream mobile terminal message, selects a first upstream Internet address corresponding to the first upstream mobile terminal message, and generates the first upstream Internet message based on the first upstream Internet address.

wherein the first upstream Internet message is supplied to an Internet application,

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/599,534

wherein the protocol converting controller determines if the first upstream mobile terminal message is part of an existing session with the Internet application,

wherein, when the first upstream mobile terminal message is part of the existing session, the protocol converting controller selects a first selected Internet address as the first upstream Internet address, and

wherein, when the first upstream mobile terminal message is not part of the existing session, the protocol converting controller selects a second selected Internet address as the first upstream Internet address.

7. (currently amended): The communication system as claimed in claim 6, wherein a first downstream Internet message comprises the first selected Internet address, first downstream data corresponding to a first downstream mobile terminal message, and a first responsive mobile terminal message that is associated with the first selected Internet address,

wherein the first downstream Internet message is supplied to the protocol [converter] converting controller and the protocol [converter] converting controller generates the first downstream mobile terminal message based on the first downstream data,

wherein the first upstream mobile terminal message is supplied to the protocol converting controller in response to the first downstream mobile terminal message, and

wherein the protocol [converter] converting controller determines that the first upstream mobile terminal message is part of the existing session with the Internet application when the first upstream mobile terminal message corresponds to the first responsive mobile terminal message.

8. (currently amended): The communication system as claimed in claim 7, wherein the first downstream Internet message further comprises a first downstream identification corresponding to a destination of the first downstream mobile terminal message and a first downstream destination address of the Internet application,

wherein the protocol [converter] converting controller receives the first upstream mobile terminal message, a first upstream identification corresponding to a source of the first upstream mobile terminal message, and a first upstream destination address corresponding to the first upstream mobile terminal message, and

wherein the protocol [converter] converting controller determines that the first upstream mobile terminal message is part of the existing session with the Internet application when the first upstream mobile terminal message corresponds to the first responsive mobile terminal message, the first upstream identification corresponds to the first downstream identification, and the first upstream destination address corresponds to the first downstream destination address.

9. (currently amended): The communication system as claimed in claim 8, wherein, when the protocol [converter] converting controller determines that the first upstream mobile terminal message is not part of the existing session with the Internet application, the protocol [converter] converting controller selects the second selected Internet address based on the first upstream destination address.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/599,534

10. (currently amended): The communication system as claimed in claim 7, wherein, if the first downstream Internet message further comprises a cache parameter, the protocol [converter] converting controller generates a second upstream Internet message based on the first selected Internet address before the protocol [converter] converting controller receives the first upstream mobile terminal message,

wherein the protocol [converter] converting controller receives a second downstream Internet message corresponding to the second upstream Internet message,

wherein the second downstream Internet message comprises second downstream data corresponding to a second downstream mobile terminal message,

wherein, when the protocol [converter] converting controller receives the first upstream mobile terminal message, the protocol [converter] converting controller determines if the second downstream mobile terminal message is responsive to the first upstream mobile terminal message, and

wherein, when the second downstream mobile terminal message is responsive to the first upstream mobile terminal message, the protocol [converter] converting controller outputs the second downstream mobile terminal message.

11. (currently amended): [The] A communication system [as claimed in claim 1], comprising:

a protocol converting controller that receives a first upstream mobile terminal message having a mobile terminal communication protocol and converts the first upstream mobile terminal message into a first upstream Internet message having an Internet protocol,

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appl. No. 09/599,534

wherein the protocol converting controller receives a first downstream Internet message from an Internet application before receiving the first upstream mobile terminal message,

wherein the first downstream Internet message comprises a first downstream cookie,

wherein the protocol converting controller determines if the Internet application requires the first downstream cookie to appropriately process the first upstream Internet message,

wherein, when the first downstream cookie is required to appropriately process the first upstream Internet message, the protocol converting controller outputs the first downstream cookie as a first upstream cookie, along with the first upstream Internet message.

12. (currently amended): The communication system as claimed in claim 11, wherein the first downstream Internet [address] message further comprises a first downstream identification and a first [selected] downstream Internet address, and

wherein the protocol converting controller determines that the Internet application requires the first downstream cookie to appropriately process the first upstream Internet message if the first upstream identification and the first upstream Internet address respectively correspond to the first downstream identification and the first [selected] downstream Internet address.

13. (currently amended): A communication system, comprising:
a protocol converting controller that receives a first downstream Internet message having an Internet protocol and converts the first downstream Internet message into a first downstream mobile terminal message having a mobile terminal communication protocol,

wherein the first downstream Internet message comprises an Internet data page having:

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/599,534

first downstream mobile terminal message data that is used to generate the first downstream mobile terminal message;

first [responsive] mobile terminal message data corresponding to a first responsive upstream mobile terminal message that responds to the first downstream mobile terminal message; and

a first responsive Internet address that corresponds to the first responsive upstream mobile terminal message,

wherein the protocol converting controller generates the first downstream mobile terminal message based on the first downstream mobile terminal message data and outputs the first downstream mobile terminal message.

14. (original): The communication system as claimed in claim 13, wherein the mobile terminal communication protocol is one of an SMS protocol and a USSD protocol.

15. (original): The communication system as claimed in claim 13, wherein the Internet protocol is one of an HTTP protocol and an XML protocol.

16. (currently amended): The communication system as claimed in claim 13, wherein the protocol converting controller receives a first upstream mobile terminal message having the mobile terminal communication protocol and determines if the first upstream mobile terminal message corresponds to the first responsive upstream mobile terminal message,

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/599,534

wherein, when the first upstream mobile terminal message corresponds to the first responsive upstream mobile terminal message, the protocol converting controller generates a first upstream Internet message having the Internet protocol, and

wherein the first upstream Internet message comprises the first [responsive] Internet address.

17. (original): The communication system as claimed in claim 16, wherein the protocol converting controller receives the first downstream Internet message from an Internet application,

wherein the first downstream Internet message further comprises a first downstream cookie,

wherein the protocol converting controller determines if the Internet application requires the first downstream cookie to appropriately process the first upstream Internet message,

wherein, when the first downstream cookie is required to appropriately process the first upstream Internet message, the protocol converting controller outputs the first downstream cookie as a first upstream cookie, along with the first upstream Internet message.

18. (currently amended): A communication system, comprising:

an Internet server that receives a first upstream Internet message having an Internet protocol, wherein the first upstream Internet message is based on a first upstream mobile terminal message having [an] a mobile terminal communication protocol,

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appl. No. 09/599,534

wherein the Internet server contains an Internet application that generates a first downstream Internet message based on the first upstream Internet message,

wherein the first downstream Internet message comprises an Internet data page having:
first downstream mobile terminal message data that is used to generate a first downstream mobile terminal message that [response] responds to the first upstream mobile terminal [data] message;

first responsive mobile terminal message data corresponding to a first responsive upstream mobile terminal message that responds to the first downstream mobile terminal message; and

a first [responsive] Internet address that corresponds to the first responsive upstream mobile terminal message.

19. (original): The communication system as claimed in claim 18, wherein the mobile terminal communication protocol is one of an SMS protocol and a USSD protocol.

20. (original): The communication system as claimed in claim 18, wherein the Internet protocol is one of an HTTP protocol and an XML protocol.

21. (original): The communication system as claimed in claim 18, wherein the first downstream Internet message further comprises a first downstream cookie that is required for a second upstream Internet message to be appropriately processed by the Internet application, and

wherein the second upstream Internet message corresponds to the first responsive upstream mobile terminal message.

22. (currently amended): A communication method, comprising:

(a) receiving a first upstream mobile terminal message having a mobile terminal communication protocol, wherein the first upstream mobile terminal message comprises a destination address, which corresponds to the mobile terminal communication protocol; and

(b) converting the first upstream mobile terminal message into a first upstream Internet message having an Internet protocol;

wherein the operation (b) comprises:

(b1) selecting a first upstream Internet address corresponding to the corresponding to the destination address of the first upstream mobile terminal message; and

(b2) generating the first upstream Internet message based on the first upstream Internet address,

wherein the first upstream Internet message is supplied to an Internet application.

23. (original): The method as claimed in claim 22, further comprising:

(c) receiving a first downstream Internet message having the Internet protocol and converting the first downstream Internet message into a first downstream mobile terminal message having the mobile terminal communication protocol,

wherein the first downstream Internet message is responsive to the first upstream Internet message.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appl. No. 09/599,534

24. (original): The method as claimed in claim 22, wherein the mobile terminal communication protocol is one of an SMS protocol and a USSD protocol.

25. (original): The method as claimed in claim 22, wherein the Internet protocol is one of an HTTP protocol and an XML protocol.

26. (canceled).

27. (currently amended): The method as claimed in claim [26] 22, wherein the [step] operation (b1) comprises:

(b1a) determining if the first upstream mobile terminal message is part of an existing session with the Internet application;

(b1b) when the first upstream mobile terminal message is part of the existing session, selecting a first selected Internet address as the first upstream Internet address; and

(b1c) when the first upstream mobile terminal message is not part of the existing session, selecting a second selected Internet address as the first upstream Internet address.

28. (original): The method as claimed in claim 27, further comprising:

(c) receiving a first downstream Internet message comprising the first selected Internet address, first downstream data corresponding to a first downstream mobile terminal

message, and a first responsive mobile terminal message that is associated with the first selected Internet address;

(d) generating the first downstream mobile terminal message based on the first downstream data; and

(e) generating the first upstream mobile terminal message in response to the first downstream mobile terminal message, and

wherein the [step] operation (b1a) comprises:

(b1a1) determining that the first upstream mobile terminal message is part of the existing session with the Internet application when the first upstream mobile terminal message corresponds to the first responsive mobile terminal message.

29. (original): The method as claimed in claim 28, wherein the first downstream Internet message further comprises a first downstream identification corresponding to a destination of the first downstream mobile terminal message and a first downstream destination address of the Internet application,

wherein the [step] operation (a) comprises:

(a1) receiving a first upstream identification corresponding to a source of the first upstream mobile terminal message and a first upstream destination address corresponding to the first upstream mobile terminal message, and

wherein the [step] operation (b1a1) comprises:

(b1a1a) determining that the first upstream mobile terminal message is part of the existing session with the Internet application when the first upstream mobile terminal message

corresponds to the first responsive mobile terminal message, the first upstream identification corresponds to the first downstream identification, and the first upstream destination address corresponds to the first downstream destination address.

30. (original): The method as claimed in claim 29, wherein [step] operation (b1c) comprises:

(b1c1) when the first upstream mobile terminal message is not part of the existing session with the Internet application, selecting the second selected Internet address based on the first upstream destination address.

31. (original): The method as claimed in claim 28, further comprising:

(f) determining if the first downstream Internet message further comprises a cache parameter;

(g) when the first downstream Internet message comprises the cache parameter, generating a second upstream Internet message based on the first selected Internet address before receiving the first upstream mobile terminal message;

(h) receiving a second downstream Internet message corresponding to the second upstream Internet message, wherein the second downstream Internet message comprises second downstream data corresponding to a second downstream mobile terminal message;

(i) when the first upstream mobile terminal message is received, determining if the second downstream mobile terminal message is responsive to the first upstream mobile terminal message; and

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appl. No. 09/599,534

(j) when the second downstream mobile terminal message is responsive to the first upstream mobile terminal message, outputting the second downstream mobile terminal message.

32. (currently amended): [The] A communication method [as claimed in claim 22, further] comprising:

(a) receiving a first upstream mobile terminal message having a mobile terminal communication protocol; and

(b) converting the first upstream mobile terminal message into a first upstream Internet message having an Internet protocol;

(c) receiving a first downstream Internet message from an Internet application before receiving the first upstream mobile terminal message, wherein the first downstream Internet message comprises a first downstream cookie;

(d) determining if the Internet application requires the first downstream cookie to appropriately process the first upstream Internet message; and

(e) when the first downstream cookie is required to appropriately process the first upstream Internet message, outputting the first downstream cookie as a first upstream cookie, along with the first upstream Internet message.

33. (currently amended): The method as claimed in claim [22] 32, wherein first downstream Internet address further comprises a first downstream identification and a first selected Internet address, and

wherein the [step] operation (d) comprises:

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/599,534

(d1) determining that the Internet application requires the first downstream cookie to appropriately process the first upstream Internet message if the first upstream identification and the first upstream Internet address respectively correspond to the first downstream identification and the first selected Internet address.

34. (currently amended): A software program contained in a computer readable medium, wherein the software program instructs a communication system to perform a routine, comprising:

(a) receiving a first upstream Internet message having an Internet protocol, wherein the first upstream Internet message is based on a first upstream mobile terminal message having [an] a mobile terminal communication protocol,

(b) generating a first downstream Internet message based on the first upstream Internet message, wherein the first downstream Internet message comprises an Internet data page having:

first downstream mobile terminal message data that is used to generate a first downstream mobile terminal message that [response] responds to the first upstream mobile terminal message [data];

first responsive mobile terminal message data corresponding to a first responsive upstream mobile terminal message that responds to the first downstream mobile terminal message; and

a first responsive Internet address that corresponds to the first responsive upstream mobile terminal message.

35. (original): The software program as claimed in claim 34, wherein the mobile terminal communication protocol is one of an SMS protocol and a USSD protocol.

36. (original): The software program as claimed in claim 34, wherein the Internet protocol is an HTTP protocol and an XML protocol.

37. (original): The software program as claimed in claim 34, wherein the first downstream Internet message further comprises a first downstream cookie that is required for a second upstream Internet message to be appropriately processed, and
wherein the second upstream Internet message corresponds to the first responsive upstream mobile terminal message.

38. (new): The communication system as claimed in claim 13, wherein the first upstream mobile terminal message comprises a destination address, which corresponds to the mobile terminal communication protocol, and
wherein the protocol converting controller selects the first upstream Internet address corresponding to the destination address of first upstream mobile terminal message.

39. (new): The communication system as claimed in claim 6, wherein the first upstream mobile terminal message comprises a destination address, which corresponds to the mobile terminal communication protocol, and

wherein the protocol converting controller selects the first upstream Internet address corresponding to the destination address of first upstream mobile terminal message.

40. (new): The communication system as claimed in claim 11, wherein the first upstream mobile terminal message comprises a destination address, which corresponds to the mobile terminal communication protocol,

wherein the protocol converting controller receives the first upstream mobile terminal message, selects a first upstream Internet address corresponding to the destination address of the first upstream mobile terminal message, and generates the first upstream Internet message based on the first upstream Internet address.

41. (new): The communication method as claimed in claim 32, wherein the first upstream mobile terminal message comprises a destination address, which corresponds to the mobile terminal communication protocol, and

wherein the operation (b) comprises:

(b1) selecting a first upstream Internet address corresponding to the destination address of the first upstream mobile terminal message; and

(b2) generating the first upstream Internet message based on the first upstream Internet address,

wherein the first upstream Internet message is supplied to an Internet application.

42. (new): The software program as claimed in claim 34, further comprising:

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appl. No. 09/599,534

(c) receiving the first upstream mobile terminal message, wherein the first upstream mobile terminal message comprises a destination address which corresponds to the mobile terminal communication protocol;

(d) converting the first upstream mobile terminal message into the first upstream Internet message;

wherein the operation (d) comprises:

(d1) selecting a first upstream Internet address corresponding to the corresponding to the destination address of the first upstream mobile terminal message; and

(d2) generating the first upstream Internet message based on the first upstream Internet address, and

wherein the first upstream Internet message is supplied to an Internet application.